

REMARKS

Claims 1 and 4 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Applicants respectfully traverse this rejection because the Examiner appears to be attempting to limit the present invention to individual portions of only some of various embodiments described throughout the Specification. The Examiner, however, does not appear to have considered all of the embodiments disclosed in the Specification, or the Specification as a whole, and limitations are being added to the present invention that the present Specification does not require.

For example, the Examiner asserts that the present Specification requires that “each [of the] driving devices (DRV1-DRV3) [has a] number of driving blocks (BL1, BL2...BL8).” The Examiner then asserts that the present Specification teaches to use a switch signal only to control the number of driving blocks in the device. Neither statement, however, is accurate. First, the Examiner improperly mischaracterizes the blocks of the display area 100 (see page 13, lines 8-9) to be “driving” blocks. The present Specification does show how individual blocks of the display area are driven, but does not teach that these blocks of display area actually perform the driving function themselves, as implied by the Examiner. Applicants respectfully request that the Examiner give consideration to the claims only in light of what is taught in the Specification, and not add limitations that clearly contradict the Specification.

Furthermore, FIG. 12 of the present Application does not limit the driving devices to only a particular number of blocks of display area, as also implied by the

Examiner. FIG. 12 clearly shows that each block of display area, and each data line within each block, are connected to each one of the drivers shown. Accordingly, the “confusion” asserted by the Examiner is not in the claim language itself, which is fully supported by at least FIG. 12 of the present Application, but in the Examiner’s misinterpretation of the teachings of the present Application.

Additionally, the Examiner does not appear to have considered several other significant portions and embodiments of the present Specification that contradict his assertions regarding its requirements. FIGS. 9A-C clearly illustrate a series of examples where one single data line can be driven by one, two, or four separate drivers simultaneously, the number of drivers BF used to drive each data line DL, which are controlled by the switches SW. Applicants note that the Examiner does not mention FIGS. 9A-C in the rejection. The limitations cited by the Examiner from independent claim 1 are therefore fully supported by at least these, as well as other, portions of the Specification, and the rejection is therefore without merit. If the Examiner would like assistance understanding the technology of the present invention, the Examiner is invited to call Applicant’s representative at the number listed below.

Claims 1 and 4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Imamura (U.S. 6,091,382) and Ichikawa (U.S. 5,028,916), and further in view of either Murade (U.S. 6,531,996) or Maekawa (U.S. 5,686,936). Because the Examiner merely repeats his same previous reliance upon the Imamura, Murade, and Maekawa references without answering Applicants’ arguments describing the clear deficiencies in these

references, Applicants respectfully traverse the rejections for at least the reasons of record, and incorporate all of the arguments from Amendment D, filed September 21, 2005, by reference herein. Applicants further traverse the rejection because the newly cited Ichikawa reference does not support the Examiner's assertions regarding the reference.

The Examiner admits that Imamura fails to teach that a plurality of driving devices, which simultaneously drive each data signal line to increase the driving capability, are disposed on the same side of the data signal lines. The Examiner continues to assert, however, that such features are taught in both of the Murade and Maekawa references. Neither Murade, nor Maekawa, however, supports the Examiner's assertions, and the Examiner has failed to answer the meritorious arguments previously presented by Applicants discussing these clear deficiencies of the references before repeating the same reliance on these references.

With respect to the Maekawa reference, the Examiner continues to assert that Maekawa teaches that "the driving devices could be mounted on opposite side (sic) or same side (sic) of the data lines." Once again, this assertion fails to consider the actual features and limitations of claim 1. Claim 1 does not merely recite that *any* two drivers can be located on the same side of the data lines. Instead, claim 1 specifically recites that the drivers located on the same side of the data lines are drivers which simultaneously drive each data line to increase the driving capability. Maekawa, on the other hand, does not even teach two drivers simultaneously driving any single data line together to increase its driving capability.

As repeatedly pointed out to the Examiner, the two drivers H and P are never taught by Maekawa to simultaneously drive any data line to increase its driving capability. The H driver is taught to supply video signals (column 3, lines 66-67), and the P driver is taught to control only the switching elements PSW and the precharging signal VPS. (See column 4, lines 23-27). No combination of these two drivers in the Maekawa device would ever increase the driving capability of the data lines, because the two drivers specifically perform two entirely different functions.

Moreover, Maekawa even teaches away from the Examiner's assertions. Maekawa specifically teaches that precharging signal VPS, which is controlled by the P driver 5, is supplied to each of the signal lines Y prior to the sequential sampling of the video signal VSIG with respect to each of the signal lines Y. (See column 4, lines 13-17). In other words, not only does Maekawa fail to teach that the H and the P driver increase the driving capability of the data signal lines, the reference specifically teaches that the signals supplied from these two different drivers are not supplied simultaneously to drive any particular data line because the signal from the P driver is supplied prior to any sampled signal from the H driver.

As previously discussed, all of the plurality of drivers recited in the present invention have specific features and limitations, all of which must be shown in the prior art in order for the Examiner's analogy to have merit. The two different drivers cited from Maekawa, however, fail to read upon all of the limitations of the present invention, and the Examiner has therefore not met the burden to establish a *prima facie* case of obviousness.

The Examiner has still not answered these specific arguments. The rejection based at least in part on the Maekawa reference must therefore be withdrawn.

The rejection based in part on the Murade reference must also be withdrawn for similar reasons. The Examiner has not answered any of the meritorious arguments that pointed out the clear deficiencies of this reference either. Contrary to the Examiner's assertions, Murade does not even teach two separate driving devices for simultaneously driving any particular data line. As cited by the Examiner, FIGS. 14 and 15 of Murade only show a single data line driving circuit, and not a plurality of driving devices. More significantly, the Examiner's remarks regarding the reference demonstrate a significant misunderstanding of basic principles known in the art.

Specifically, the Examiner asserts that Murade's video signals VID1-VID6 and supply contacts 103g, 103h are somehow equivalent to driving devices. The Examiner cites to no teaching or suggestion though, within the reference or elsewhere in the art, that supports the assertion that a video signal or an electrical contact point would both be, either separately or together, considered by one skilled in this particular art to be a "driving device". The assertion is without merit, and renders the rejection deficient on its face.

The rejection is further deficient because Murade specifically teaches away from the Examiner's assertions. Murade specifically teaches that video signals "are supplied from two sides of the data line driving circuit" (column 28, lines 60-61), and that the contact points 103g and 103h are separately provided so that the video signals are supplied through both right and left image signal lines 304 (column 28, lines 61-64). Murade's Abstract (also

relied upon by the Examiner for support) specifically contradicts the Examiner's assertions, emphasizing how signals are specifically supplied from either "two ends" of the circuit or its signal lines, and from its "two sides." The Murade reference thus specifically teaches away from driving the data lines from the same side, and the rejection should be withdrawn for at least these additional reasons.

Additionally, with respect to the Imamura reference, the Examiner does not appear to have considered the actual language recited in claim 1. The Examiner asserts that Imamura teaches to supply "a plurality of sets of same image display data to each data line simultaneously so as to increase the driving capability." (Page 2 of the outstanding Office Action, emphasis added). Claim 1 of the present invention though, does not actually recite "same image display data," as implied by the Examiner. Instead, claim 1 actually recites that the driving part of the present invention uses a plurality of driving devices together simultaneously to drive each data signal line so as to increase the driving capability. Once again, the Examiner appears to be considering limitations that are not actually claimed in the present invention. Applicants thus respectfully request that the Examiner limit his consideration to the features actually claimed.

The failure to consider the actual language recited in claim 1 of the present invention renders the Examiner's additional reliance on the Ichikawa reference further inappropriate. Ichikawa shows selectors 74 for each of the address selectors T1-T4, but Ichikawa does not teach or suggest that these selectors have anything to do with how many drivers are controlled to drive each of the data signal lines. In fact, Ichikawa teaches the

opposite. Ichikawa teaches that selectors are utilized “to *sequentially* deliver the corresponding output signals” of the display, and in a “*time-division multiplexed* fashion.” (column 9, lines 39-62, emphasis added). Therefore, not only does Ichikawa fail to show any switching control of the number of drivers used to drive a signal data signal line, Ichikawa expressly teaches that the signals that are controlled by the switches are not even simultaneous. Accordingly, Ichikawa fails to support the Examiner’s assertions, and the rejection should be withdrawn for at least these still further reasons.

The issues discussed above illustrate several significant defects in the *prima facie* case of obviousness the Examiner attempts to establish. First, the Examiner has not identified where any of the cited prior art references teach or suggest the existence of a plurality of drivers located on the same side of the data signal lines, which are used simultaneously to drive each of the data signal lines to increase the driving capability. It has also not been established where any of the cited references teach or suggest switches that control the number of driving devices simultaneously used to drive each data signal line. The *prima facie* case of obviousness therefore fails according to section 2143.03 of the MPEP because the references do not teach or suggest all of the claimed limitations of the present invention.

Furthermore, the *prima facie* also fails because the Examiner has not established the obviousness of combining the references. Section 2143.01 of the MPEP expressly requires the Examiner to cite to where the proposed combination itself is actually taught or suggested within the prior art references, and not merely possible. The fact that the

references could be combined, or even that their combination is within the skill of one of the art, does not establish the obviousness of the combination. Instead, the Examiner had the burden to establish where the references themselves teach the desirability of the proposed combination, and this burden has not been satisfied in the present case.

For example, the Examiner asserts that it would have been obvious to combine the Imamura and Murade references “since the data driving device mounted on the same side of the data lines would be more easy for assembly, repair, and replace (sic).” The Examiner, however, merely states this rationale as a conclusionary opinion, and does not cite to any teaching or suggestion in the reference for support. In fact, Murade does not discuss assembly, repair, or replacement issues with respect to where driving devices are mounted. As discussed above, Murade does not even teach plural driving devices for each of the data signal lines. Regardless, the Examiner’s conclusionary opinion does not establish that the prior art itself teaches the desirability of the combination, as required under section 2143.01.

A similar deficiency exists in the Examiner’s proposed rationale for combining Ichikawa with the other references. The Examiner is correct that Ichikawa states a goal of providing a device with “a fast and efficient display drive operation with a simplified circuit configuration.” Applicants concede that this stated goal of Ichikawa would be desirable for any display device. The Examiner has failed to establish, however, how the particular proposed combination itself satisfies this goal, or how this broadly stated goal would motivate one skilled in the art to make the exact combination proposed by the Examiner. In fact, there is no such teaching or suggestion within the references themselves for the actual

combination. The Examiner has not attempted to explain how his proposed combination would actually create a faster or more efficient display drive operation, or simplify its circuit configuration. Quite the contrary, the combination of the several references together would most likely further complicate the circuit configuration, and not simplify it. In any event, the Examiner cites to no affirmative teaching or suggestion within the references to justify the desirability of adding Ichikawa's selectors to the devices of any of the other three references.

With respect to the Examiner's rationale for combining Maekawa with Imamura, even though Maekawa does teach to provide *some* driving devices on opposite sides or the same side of a device, this fact is irrelevant to the present invention. The driving devices actually cited in Maekawa are not the same, they do not drive the same data signal lines simultaneously, and the Examiner has not cited to any teaching or suggestion from Maekawa either that discusses these of assembly, repair, or replacement with respect to the driving devices.

Whether or not the Examiner's personal opinion has merit is irrelevant to the determination of the obviousness of combining the references. The motivation to combine the teachings of several references may not be based on the Examiner's personal opinion, but instead must be based upon some affirmative teaching or suggestion, which is capable of objective review, from the prior art itself. See *In re Lee*, 277 F. 3d 1338, 61 U.S.P.Q. 2d 1430 (Fed. Cir. 2002). Because none of the stated motivations for combining the references are based on actual teachings or suggestions from the art, the obviousness of combining the


references has not been established on the record, and the rejection must be withdrawn for at least these reasons as well.

For all of the foregoing reasons, Applicants submit that this Application, including claims 1 and 4, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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June 7, 2006

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